

REMARKS

Upon entry of the present amendment, claims 1-2 and 4-15 are pending in the application, of which claims 1, 5, 9, 10, and 14-15 are independent. The applicant gratefully acknowledges the Examiner's allowance of claims 10, 14, and 15 in the Final Office Action. The applicant further thanks the Examiner for his courtesy in regards to the personal interview with applicant's representative, which took place on February 3, 2005.

The above-identified Office Action has been reviewed, the references carefully considered, and the Examiner's comments carefully weighed. In view thereof, the present Amendment is submitted. The applicant contends that by the present amendment, all bases of rejection set forth in the Office Action have been traversed and overcome. Accordingly, reconsideration and withdrawal of the rejection is respectfully requested.

Claim rejections – 35 USC 103

In the above-identified Office Action, the Examiner rejected claims 1-9 and 11-13 under 35 USC 103(a) as unpatentable over Atkin et al (WO 91/16530) in view of Mitsuishi (JP 58-91917). The Examiner stated that Atkin discloses a crankshaft 1 with helical gears 15, but does not show split crank webs, and that Mitsuishi teaches split crank webs which are removably attached to the crankshaft. The Examiner states that, in his view, it would have been obvious to modify the crankshaft of Atkin with split webs for flexible balancing, in view of Mitsuishi.

The applicant respectfully traverses the rejection, and submits that the disclosure of Atkins, as modified by the teaching of Mitsuishi, fails to make the applicant's invention obvious. Although Mitsuishi discloses a crank web which includes a detachable weight fitted to a peripheral edge of the crank web, Mitsuishi does not disclose or suggest a helical gear formed

on the crankshaft, nor does Mitsubishi teach a first supplemental balance weight which abuts against and is removably attached to a side surface of the first balance weight mounting portion.

However, in order to expedite the prosecution of this application, the applicant has amended claims 1 and 9 by the present amendment. Claim 1 has been amended to include the limitations of claim 3 therein, and also to incorporate the limitation, from original claim 14, that the supplemental balance weight has a cylindrical hole formed therein to receive a portion of the crankshaft body. Claim 9 has been amended herein to require that the first supplemental balance weight abuts against and is removably attached to a side surface of the crankshaft first balance weight mounting portion. Applicant respectfully suggests that, as presently amended, the claims patentably distinguish over all known references.

Conclusion


Based on the foregoing, applicant respectfully submits that all of the objections and rejections set forth in the Office Action have been overcome by the present amendment, and that as presently amended, all of the pending claims are believed to be allowable over all of the references of record, whether considered individually or in any reasonable combination.

Applicant requests reconsideration and withdrawal of the rejection of record, and allowance of the pending claims.

If the Examiner is not fully convinced of all of the claims now in the application, applicant respectfully requests that the Examiner telephonically contact applicant's undersigned representative to expeditiously resolve prosecution of the application.

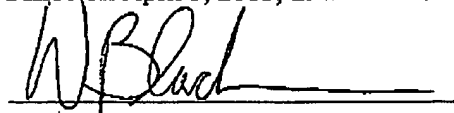
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CERTIFICATE OF FACSIMILE TRANSMISSION

I hereby certify that this correspondence is being transmitted, via facsimile, to the United States Patent and Trademark Office on April 5, 2005, at the number (703) 872-9306.



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